CLAIMS:

1. Method of recording a sequence of ordered real-time information signals, such as audio/video information, on a disc like recording medium, such as an optically readable disc, the method comprising:

applying a sequence of marks, representing a sequence of information signals of a recording, along a spiral track on the disc like recording medium, wherein the marks are allocated contiguously in fragments, the fragments being separately addressable, characterized by,

allocating allocation extents of at least one fragment, with fragments within an allocation extent allocated contiguously, the allocation extents located preferably in a distributed manner over the recordable area of the disc like recording medium with preferably free space areas in the neighborhood of the separate allocation extents, said free space being available for subsequently allocating allocation extents of a subsequent recording.

2. Method according to claim 1, characterized by,

allocating allocation extents representing neighboring real time information signals in the ordered sequence of information signals, preferably spatially in each other neighborhood on the disc like recording medium.

3. Method according to claim 2, characterized by,

allocating allocation extents in consecutive order in either inward or outward direction along the radius of the recording medium.

4. Method according to claim 3, characterized by,

continuing allocating allocation extents in a reversed order from the inner, respectively the outer diameter of a recordable area of the recording medium when reaching the inner, respectively the outer diameter.

5. Method according to claim 1, characterized by,

dividing a logical address space related to the recording medium in successive allocation areas,

dividing each allocation area in allocation zones, and

allocating the allocation extents in the allocation zones.

6. Method according to claim 1, wherein the disc like recording medium is divided in successive annular bands, the annular bands spanning contiguous parts of the disc like recording medium, while

rotating the disc like recording medium with a constant angular velocity during recording in an annular band, characterized by,

allocating an allocation extent in an annular band, wherein successive allocation extents are allocated in successive annular bands, an annular band having a size adapted to allocate therein additional allocation extents representing a second recording.

7. Method according to claim 1, wherein the recording medium is adapted to record marks of the optically readable type in mutually alternating spiral groove and land tracks, characterized by,

allocating an allocation extent either in a groove track or in a land track.

8. Method according to claim 5 and claim 7, characterized by,

allocating successive allocation zones located in groove tracks in a first order and in land tracks in a second, opposite order.

9. Method according to one of the claims 1-8, for recording a second sequence of marks, representing real-time information signals of a second recording, characterized by,

allocating successive allocation extents of at least one fragment of the second sequence preferably in the neighborhood of the successive allocation extents of the first sequence, preferably in a distributed manner over the recordable area of the disc like recording medium with preferably free space areas in the neighborhood of the allocated allocation extents, said free space being available for allocation of further allocation extents of subsequent sequences.

10. Method of simultaneously reproducing and recording sequences of ordered real-time information signals, such as audio/video information, from or on a disc like recording

medium, such as an optically readable disc, wherein at least a first sequence of marks, representing the information signals of a first recording, has been recorded according to one of the claims 1 – 8, the method comprising alternately:

reading from the disc like recording medium at least one recorded fragment of at least one allocation extent of the first sequence of marks for reproduction, and

allocating on the disc like recording medium at least one fragment of at least one allocation extent of a subsequent, second sequence of marks, representing information signals of a second recording, for recording preferably in the neighborhood of the at least one previous and/or next fragment of the first sequence read.

11. Method according to claim 10, wherein allocating fragments of a recording is performed with a first data rate and reading fragments of a recording is done with a second, different data rate, the method comprising alternately

allocating a first number of fragments and reading a second number of fragments, wherein the first, respectively second number is determined by the first, respectively second data rate.

12. A disc like recording medium, such as an optical disc, provided with marks representing real time information signals, such as audio/video information, allocated in response to the method of recording marks according to one of the claims 1 – 11.

13. An apparatus for recording a sequence of real-time information signals, such as audio/video information, on a disc like recording medium, such as an optically readable disc, the apparatus comprising:

receiving means for receiving real time information signals for recording,

writing means for applying a sequence of marks, representing a sequence of real time information signals of a recording, along a spiral track of the disc like recording medium, and

control means for controlling the writing means such as to apply said marks in separately addressable fragments of contiguously recorded marks,

characterized in that, the apparatus comprises

allocation means adapted to allocate allocation extents of at least one fragment, with fragments within a allocation extent allocated contiguously, the allocation extents located preferably in a distributed manner over the recordable area of the disc like recording medium

with preferably free space areas in the neighborhood of the separate allocation extents, said free space being available for applying further allocation extents of a subsequent recording and

the control means are adapted to control the writing means such as to apply marks in the allocation extents.

14. Apparatus according to claim 13, characterized in that,

the allocation means are adapted to allocated allocation extents representing neighboring real time information signals in the ordered sequence of information signals, preferably spatially in each other neighborhood on the disc like recording medium.

15. Apparatus according to claim 14, characterized in that,

the allocation means are adapted to allocate the allocation extents in consecutive order in either inward or outward direction along the radius of the recording medium.

16. Apparatus according to claim 15, characterized in that,

the allocating means are adapted to continue allocate allocation extents in a reversed order from the inner, respectively the outer diameter of a recordable area of the recording medium when reaching the inner, respectively the outer diameter.

17. Apparatus according to claim 13, characterized in that, the apparatus comprises addressing means adapted to divide a logical address space related to the recording medium in successive allocation areas and to divide each allocation area in allocation zones and

the allocation means are adapted to allocate the allocation extents in the allocation zones.

18. Apparatus according to claim 13, adapted to

operate with a disc like recording medium that is divided in successive annular bands, the annular bands spanning contiguous parts of the disc like recording medium, and adapted to rotate the disc like recording medium with a constant angular velocity during recording in an annular band, characterized in that,

the allocation means are adapted to allocate an allocation extent in an annular band, with successive allocation extents allocated in successive annular bands, an annular band having a size adapted to allocate therein additional allocation extents representing a second recording.

19. Apparatus according to claim 13, adapted to apply marks of the optically detectable type in mutually alternating spiral groove and land tracks of the recording medium, characterized in that,

the allocation means are adapted to allocate an allocation extent either in a groove track or in a land track.

20. Apparatus according to claim 19 and claim 17, characterized in that,

the allocation means are adapted to allocate successive allocation zones in groove tracks in a first order and in land tracks in a second, opposite order.

21. Apparatus according to one of the claims 13-20, for recording a second sequence of marks, representing real-time information signals of a second recording, characterized in that,

the allocation means are adapted to allocate successive allocation extents of at least one fragment of the second sequence in the neighborhood of the successive allocation extents of the first sequence, preferably in a distributed manner over the recordable area of the disc like recording medium with preferably free space areas in the neighborhood of the allocated allocation extents, said free space being available for appliance of further allocation extents of subsequent sequences.

22. Apparatus for simultaneously reproducing and recording sequences of ordered real time information signals, such as audio/video information, from or on a disc like recording medium, such as an optically readable disc, wherein the information signals are recorded on the disc like recording medium by marks arranged along a spiral track of the disc like recording medium and are allocated in addressable fragments of contiguously recorded marks,

wherein at least a first sequence of marks, representing the information signals of a first recording, has been recorded according to the method of one the claims 1 – 8, the apparatus comprising :

receiving means for receiving real time information signals for recording,

writing means for applying a fragment of marks representing information signals received by the receiving means on the disc like recording medium,

reading means for reading at least a fragment of marks from the disc like recording medium,

reproducing means for reproducing real time information signals represented by the marks read,

characterized in that, the apparatus comprises

control means for controlling the write means and read means in order to alternately:

read at least one recorded fragment of at least one allocation extent of the first sequence for supply to the reproducing means and

allocate at least one fragment of at least one allocation extent of a subsequent, second sequence of marks, representing information signals of a second recording, preferably in the neighborhood of the at least one fragment of the first recorded sequence read and/or the next fragment of the first recorded sequence to read.

23. Apparatus according to claim 22, adapted to apply fragments of marks of a recording with a first data rate and to read fragments of a recording with a second, different data rate, wherein

the control means are adapted to control alternately:

the write means to apply a first number of fragments of marks wherein the first number is determined by the first data rate, and

the reading means to read a second number of fragments of marks wherein the second number is determined by the second data rate.